SEQUENCE LISTING

AP3 Rec'd PCT/PTO 12 JUN 2023

<110> Institut Pasteur Institut National de la Santé et de la Recherche Médicale (INSERM) <120> Repertoire determination of a lymphocyte B population <130> D21747 <150> EP 03/293,159 <151> 2003-12-15 <150> US 10/734,622 <151> 2003-12-15 <160> 47 <170> PatentIn version 3.2 <210> 1 <211> 21 <212> DNA <213> Artificial <220> <221> source <222> (1)..(21) <223> /note="description of artificial sequence: Forward primer HUMVH1a specific for the nucleic acid encoding a VH segment of the VH1 subgroup" <400> 1 21 agtgaaggtc tcctgcaagg c <210> 2 <211> 21 <212> DNA <213> Artificial <220> <221> source <222> (1)..(21) <223> /note="description of artificial sequence: Forward primer HUMVH1b specific for the nucleic acid encoding a VH segment of the VH1 subgroup" <400> 2 21 agtgaaggtt tcctgcaagg c <210> 3 <211> 21 <212> DNA <213> Artificial <220> <221> source <222> (1)..(21) <223> /note="description of artificial sequence: Forward primer HUMVH1c

specific for the nucleic acid encoding a VH segment of the VH1 subgroup"

<400> 3 agtgaarrtc tcctgcaagg t

21

<210> 4

<211> 19

<212> DNA

<213> Artificial

<220>

<221> source

<222> (1)..(19)

<223> /note="description of artificial sequence: Forward primer HUMVH2 specific for the nucleic acid encoding a VH segment of the VH2 subgroup"

<400> 4

aacccacasa gaccctcac

19

<210> 5

<211> 24

<212> DNA

<213> Artificial

<220>

<221> source

<222> (1)..(24)

<223> /note="description of artificial sequence: Forward primer HUMVH3aa specific for the nucleic acid encoding a VH segment of the VH3a subgroup"

<400> 5

gcagattcac catctcaaga gatg

24

<210> 6

<211> 24

<212> DNA

<213> Artificial

<220>

<221> source

<222> (1)..(24)

<223> /note="description of artificial sequence: Forward primer HUMVH3ab specific for the nucleic acid encoding a VH segment of the VH3a subgroup"

<400> 6

gcaggttcac catctccaga gatg

24

<210> 7

<211> 22

<212> DNA

<213> Artificial

<220>

3/13

```
<221> source
<222> (1)..(22)
<223> /note="description of artificial sequence: Forward primer
       HUMVH3ba specific for the nucleic acid encoding a VH segment of
       the VH3b subgroup"
<400> 7
                                                                       22
gccgattcac catctccaga ga
<210> 8
<211> 22
<212> DNA
<213> Artificial
<220>
<221> source
<222> (1)..(22)
<223> /note="description of artificial sequence: Forward primer
       HUMVH3bb specific for the nucleic acid encoding a VH segment of
       the VH3b subgroup"
<400> 8
                                                                        22
gcagattcac catctccaga ga
 <210> 9
 <211> 22
 <212> DNA
 <213> Artificial
 <220>
 <221> source
 <222> (1)..(22)
 <223> /note="description of artificial sequence: Forward primer
        HUMVH3bc specific for the nucleic acid encoding a VH segment of
        the VH3b subgroup"
 <400> 9
                                                                        22.
 gccgattcac catctccagg ga
 <210> 10
 <211> 22
 <212> DNA
 <213> Artificial
 <220>
 <221> source
 <222> (1)..(22)
 <223> /note="description of artificial sequence: Forward primer
        HUMVH3bd specific for the nucleic acid encoding a VH segment of
        the VH3b subgroup"
  <400> 10
                                                                         22
  gcaggttcac catctccaga ga
  <210> 11
  <211> 22
```

<212> DNA

PCT/IB2004/004413

140

```
<213> Artificial
<220>
<221> source
<222> (1)..(22)
<223> /note="description of artificial sequence: Forward primer HUMVH4a
       specific for the nucleic acid encoding a VH segment of the VH4
       subgroup"
<400> 11
                                                                        22
ctacaacccg tccctcaaga gt
<210> 12
<211> 22
<212> DNA
<213> Artificial
<220>
<221> source
<222> (1)..(22)
<223> /note="description of artificial sequence: Forward primer HUMVH4b
       specific for the nucleic acid encoding a VH segment of the VH4
       subgroup"
<400> 12
                                                                        22
ctacaaccc tccctcaaga gt
 <210> 13
 <211> 18
 <212> DNA
 <213> Artificial
 <220>
 <221> source
 <222> (1)..(18)
 <223> /note="description of artificial sequence: Forward primer HUMVH5
        specific for the nucleic acid encoding a VH segment of the VH5
        subgroup"
 <400> 13
                                                                         18
 gtgaaaaagc ccggggag
 <210> 14
 <211> 18
 <212> DNA
 <213> Artificial
 <220>
 <221> source
 <222> (1)..(18)
 <223> /note="description of artificial sequence: Forward primer HUMVH6
        specific for the nucleic acid encoding a VH segment of the VH6
        subgroup"
 <400> 14
                                                                         18
 tccggggaca gtgtctct
```

<400> 18

. .

```
<210> 15
<211> 21
<212> DNA
<213> Artificial
<220>
<221> source
<222> (1)..(21)
<223> /note="description of artificial sequence: Forward primer HUMVH7
       specific for the nucleic acid encoding a VH segment of the VH7
     . subgroup"
<400> 15
                                                                        21
ggtgcaatct gggtctgagt t
<210> 16
<211> 17
<212> DNA
<213> Artificial
<220>
<221> source
<222> (1)..(17)
 <223> /note="description of artificial sequence: Reverse primer IGJH1
        specific for the nucleic acid encoding a JH segment of the JH1
        subgroup"
 <400> 16
                                                                         17
 ccctggcccc agtgctg
 <210> 17
 <211> 18
 <212> DNA
 <213> Artificial
 <220>
 <221> source
 <222> (1)..(18)
 <223> /note="description of artificial sequence: Reverse primer IGJH2
        specific for the nucleic acid encoding a JH segment of the JH2
        subgroup"
 <400> 17
                                                                         18
 ccacggcccc agagatcg
  <210> 18
  <211> 23
  <212> DNA
  <213> Artificial
  <220>
  <221> source
  <222> (1)..(23)
  <223> /note="description of artificial sequence: Reverse primer IGJH3
         specific for the nucleic acid encoding a JH segment of the JH3
         subgroup"
```

23 cccttggccc cagayatcaa aag <210> 19 <211> 19 <212> DNA <213> Artificial <220> <221> source <222> (1)..(19) <223> /note="description of artificial sequence: Reverse primer IGJH4.1 specific for the nucleic acid encoding a JH segment of the JH4 subgroup" <400> 19 19 ggttccttgg ccccagtag <210> 20 <211> 19 <212> DNA <213> Artificial <220> <221> source <222> (1)..(19) <223> /note="description of artificial sequence: Reverse primer IGJH4.2 specific for the nucleic acid encoding a JH segment of the JH4 subgroup" <400> 20 19 ggttccctgg ccccagtag <210> 21 <211> 19 <212> DNA <213> Artificial <220> <221> source <222> (1)..(19) <223> /note="description of artificial sequence: Reverse primer IGJH4.3 specific for the nucleic acid encoding a JH segment of the JH4 subgroup" <400> 21 19 ggtcccttgg ccccagtag <210> 22 <211> 18 <212> DNA <213> Artificial <220> <221> source <222> (1)..(18) <223> /note="description of artificial sequence: Reverse primer IGJH5 specific for the nucleic acid encoding a JH segment of the JH5

subgroup"

<220>

<400> 22 18 tggccccagg rgtcgaac <210> 23 <211> 20 · <212> DNA <213> Artificial <220> <221> source <222> (1)..(20) <223> /note="description of artificial sequence: Reverse primer IGJH6.1 specific for the nucleic acid encoding a JH segment of the JH6 subgroup" <400> 23 20 ccttgccccc agacgtccat <210> 24 <211> 20 <212> DNA <213> Artificial <220> <221> source <222> (1)..(20) <223> /note="description of artificial sequence: Reverse primer IGJH6.2 specific for the nucleic acid encoding a JH segment of the JH6 subgroup" <400> 24 -20 ccttggcccc agacgtccat <210> 25 <211> 20 <212> DNA <213> Artificial <220> <221> source <222> (1)..(20) <223> /note="description of artificial sequence: Reverse primer IGJH6.3 specific for the nucleic acid encoding a JH segment of the JH6 subgroup" <400> 25 20 cctttgcccc agacgtccat <210> 26 <211> 16 <212> DNA <213> Artificial

. 4

```
<221> source
<222> (1)..(16)
<223> /note="description of artificial sequence: Reverse primer HIGCM
       specific for the nucleic acid encoding a CH segment of the IgM
       heavy chain"
<400> 26
                                                                       16
cagccaacgg ccacgc
<210> 27
<211> 19
<212> DNA
<213> Artificial
<220>
<221> source
<222> (1)..(19)
<223> /note="description of artificial sequence: Reverse primer HIGCGa
       specific for the nucleic acid encoding a CH segment of the IgG
       heavy chain"
<400> 27
                                                                       19
tcagagcgcc tgagttcca
 <210> 28
 <211> 19
 <212> DNA
 <213> Artificial
 <220>
 <221> source
 <222> (1)..(19)
 <223> /note="description of artificial sequence: Reverse primer HIGCGb
        specific for the nucleic acid encoding a CH segment of the IgG
        heavy chain"
 <400> 28
                                                                        19
 tcagggcgcc tgagttcca
 <210> 29
 <211> 15
 <212> DNA
 <213> Artificial
 <220>
 <221> source
 <222> (1)..(15)
 <223> /note="description of artificial sequence: Hydrolysis probe HCM
         specific for the nucleic acid encoding the CH segment of the IgM
       heavy chain "
  <400> 29
                                                                         15
 ccgtcggata cgagc
  <210> 30
```

<211> 19

<212> DNA

```
<213> Artificial
<220>
<221> source
<222> (1)..(19)
<223> /note="description of artificial sequence: Reverse probe HCM
       specific for the nucleic acid encoding the CH segment of the IgM
       heavy chain"
<400> 30
                                                                        19
ggagacgagg gggaaaagg
<210> 31
<211> 18
<212> DNA
<213> Artificial
<220>
<221> source
<222> (1)..(18)
<223> /note="description of artificial sequence: VH5 internal forward
       primer specific for the nucleic acid encoding a VH segment of the
       VH5 subgroup"
<400> 31
                                                                        18
 agcccgggga gtctctga
 <210> 32
 <211> 17
 <212> DNA
 <213> Artificial
 <220>
 <221> source
 <222> (1)..(17)
 <223> /note="description of artificial sequence: Hydrolysis probe
        specific for the nucleic acid encoding a VH segment of the VH5
        subgroup"
 <400> 32
                                                                         17
 accettacag gagatet
 <210> 33
 <211> 20
 <212> DNA
 <213> Artificial
 <220>
 <221> source
 <222> (1)..(20)
 <223> /note="description of artificial sequence: CH reverse primer
         HIGCEl specific for the nucleic acid encoding a CH segment of the
         IgE"
 <400> 33
                                                                         20
 tcacggaggt ggcattggag
```

PCT/IB2004/004413

```
<210> 34
<211> 14
<212> DNA
<213> Artificial
<220>
<223> /note="description of artificial sequence: CH reverse hydrolysis
       probe HCG specific for the nucleic acid encoding a CH segment of
             the IgG heavy chain
<400> 34
                                                                        14
ccggtgacgg tgtc
<210> 35
<211> 22
<212> DNA
<213> Artificial
<220>
<221> source
<222> (1)..(22)
<223> /note="description of artificial sequence: CH reverse probe HCG
       specific for the nucleic acid encoding a CH segment of the IgG
       heavy chain"
<400> 35
                                                                        22
aagtagtcct tgaccaggca gc
 <210> 36
<211> 16
<212> DNA
 <213> Artificial
<220>
 <221> source
<222> (1)..(16)
<223> /note="description of artificial sequence: CH reverse hydrolysis
        probe HIGCE1-MGB specific for the nucleic acid encoding a
        CH segment of the IgE"
 <400> 36
                                                                         16.
 tgctgcaaaa acattc
 <210> 37
 <211> 19
 <212> DNA
 <213> Artificial
 <220>
 <221> source
 <222> (1)..(19)
 <223> /note="description of artificial sequence: CH reverse probe
        specific for the nucleic acid encoding a CH segment of the IgE"
 <400> 37
                                                                         19
 cgggtcaagg ggaagacgg
```

<221> source

```
<210> 38
<211> 14
<212> PRT
<213> Artificial
. <220>
<221> source
<222> (1)..(14)
<223> /note="description of artificial sequence: Amino acid CDR3
        sequence of the clonal expansion A"
<400> 38
 Thr His Ile Gly Tyr Ser Ala Ala Gly Trp Tyr Phe Asp Leu
                                      10
                 5
 1
 <210> 39
 <211> 25
 <212> PRT
 <213> Artificial
 <220>
 <221> source
 <222> (1)..(25)
 <223> /note="description of artificial sequence: /note="description of
        artificial sequence: Amino acid CDR3 sequence of the clonal
        expansion B"
 <400> 39
 Leu Gly Tyr Cys Ser Gly Gly Ser Cys Tyr Gly Val Gly Cys Gly Ala
                                                           15
                                       10
 1
 Asp Cys Tyr Arg Glu Tyr Phe Gln Asp
                                   25
              20
  <210> 40
  <211> 18
  <212> DNA
  <213> Artificial
  <220>
  <221> source
  <222> 1..18
  <223> /note="Description of artificial sequence: Reverse primer
        HIGCGintl specific for the nucleic acid encoding a CH
        segment of the IgG heavy chain
  <400> 40
                                                                          18
  agggggaaga csgatggg
  <210> 41
  <211> 19
  <212> DNA
  <213> Artificial
  <220>
```

12/13

<222> 1.	.19		
HI	ote="Description of artificial sequence: Reverse procedint and a CE of the nucleic acid encoding a CE of the IgG heavy chain		-
<400> 41 ccttgacc	ag gcagcccag -		19
,			
<210> 42 <211> 22			
<212> DN <213> Ar	A tificial		
<220>			
<221> so <222> 1.			
HI	ote="Description of artificial sequence: Reverse proceded and the GCE4 specific for the nucleic acid encoding a CH set the IgE heavy chain		
<400> 42 gtggtggc	tg gtaaggtcat ag		22
<210> 43			
<211> 15 <212> DN			
	tificial		
<220>		:	
<221> so <222> 1.			
	•	٠.	
hy	ote="Description of artificial sequence: CH reversed drolysis probe HIGCE4 specific for the nucleic acid coding a CH segment of the IgE heavy chain		
<400> 43			
ctccctca	ac gggac	1	15
<210> 44			
<211> 20			
<212> DN			
<213> Ar	LILICIAL		
<220> <221> so	urce	•	
<222> 1.			
HI	ote="Description of artificial sequence: Reverse page of the nucleic acid encoding a CH segenter the IgA heavy chain		
<400> 44	ca ggtcacactg	7	20

PCT/IB2004/004413

21

13/13

	15/15	
<210>	45	
<211>	19	
<212>	DNA	
<213>	Artificial	
<220>		
<221>	source	
<222>	119	
· <223>	/note="Description of artificial sequence: CH reverse probe specific for the nucleic acid encoding a CH segment of the IgA heavy chain	
<400>	45	
	gggaa gaccttggg	19
0-0-5-		
	•	
<210>	46	
<211>		
<212>		
<213>	Artificial	
<220>	·	
	source	
-	115	
<223>	/note="Description of artificial sequence: CH reverse hydrolysis probe specific for the nucleic acid encoding	
	a CH segment of the IgA heavy chain	
<400>		15
ttccc	ccagg agcca	
<210>	.47	
	21	
	DNA	
<213>	Artificial	
<220>		
-	source	
<222>	121	
<223>	/note="Description of artificial sequence: VH4 internal forward primer specific for the nucleic acid encoding a VH segment of the VH4 subgroup	
<400>	. Δ7	
	ctgcr ctgtctctgg t	22